

## ATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)Date of mailing (day/month/year)  
31 July 2000 (31.07.00)

From the INTERNATIONAL BUREAU

To:

TRIPOLI, Joseph, S.  
Thomson Multimedia Licensing  
Incorporated  
P.O. Box 5312  
Princeton, NJ 08540  
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 31 July 2000 (31.07.00)	IMPORTANT NOTIFICATION		
Applicant's or agent's file reference RU9700408	International filing date (day/month/year) 18 February 1999 (18.02.99)		
International application No. PCT/US99/03512			

## 1. The following indications appeared on record concerning:

the applicant  the inventor  the agent  the common representative

Name and Address THOMSON CONSUMER ELECTRONICS, INC. 10330 North Meridian Street Indianapolis, IN 46290 United States of America	State of Nationality US	State of Residence US
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

the person  the name  the address  the nationality  the residence

Name and Address THOMSON LICENSING S.A. 46, Quai A. Le Galo F-92648 Boulogne Cedex France	State of Nationality FR	State of Residence FR
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

## 3. Further observations, if necessary:

4. A copy of this notification has been sent to:	<input type="checkbox"/> the receiving Office <input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority <input checked="" type="checkbox"/> the elected Offices concerned	
<input type="checkbox"/> the International Preliminary Examining Authority <input type="checkbox"/> other:	

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Beate Giffo-Schmitt Telephone No.: (41-22) 338.83.38
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## P. . ENT COOPERATION TREAT .

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**NOTIFICATION OF ELECTION**  
(PCT Rule 61.2)

## From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C. 20231  
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 07 September 1999 (07.09.99)	in its capacity as elected Office
<b>International application No.</b> PCT/US99/03512	<b>Applicant's or agent's file reference</b> RU9700408
<b>International filing date</b> (day/month/year) 18 February 1999 (18.02.99)	<b>Priority date</b> (day/month/year) 20 February 1998 (20.02.98)
<b>Applicant</b> OZKAN, Mehmet, Kemal et al	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

11 August 1999 (11.08.99)

in a notice effecting later election filed with the International Bureau on:

2. The election  was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p><b>The International Bureau of WIPO</b>  <b>34, chemin des Colombettes</b>  <b>1211 Geneva 20, Switzerland</b></p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer</p> <p><b>Jean-Marie McAdams</b></p> <p>Telephone No.: (41-22) 338.83.38</p>
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## PATENT COOPERATION TREATY

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## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference RCA 89400	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US99/03512	International filing date (day/month/year) 18/02/1999	Priority date (day/month/year) 20/02/1998
International Patent Classification (IPC) or national classification and IPC H04N7/16		
<p><b>Applicant</b> THOMSON CONSUMER ELECTRONICS, INC. et al.</p> <p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p> <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input checked="" type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul>		

Date of submission of the demand 11/08/1999	Date of completion of this report 26.11.1999
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Noll, B Telephone No. +49 89 2399 8700



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/03512

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-23                    as originally filed

**Claims, No.:**

1-18                    as originally filed

**Drawings, sheets:**

1/11-11/11            as originally filed

2. The amendments have resulted in the cancellation of:

the description,        pages:  
 the claims,               Nos.:  
 the drawings,            sheets:

3.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/03512

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N) Yes: Claims 1-18  
No: Claims

Inventive step (IS) Yes: Claims 1-18  
No: Claims

Industrial applicability (IA) Yes: Claims 1-18  
No: Claims

**2. Citations and explanations**

**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US99/03512

**To section V:**

The invention relates to forming and acquiring of data representing program guides. The program guide data comprises program guide information hierarchically ordered in data table partitions and ancillary information including hierarchically associated version numbers associated with the partitions. During decoding a processor has only to detect ancillary data in which the version numbers have changed in order to locate a partition which has to be updated. Due to the hierarchically ordered data structure the amount of data required for transmitting the version numbers can be kept low.

None of the available documents discloses or renders obvious the invention. In the prior art it is only known to assign version numbers to particular data streams so that the actual version of data can be determined. Hence the apparatus of claims 1 and 6, the method of claims 8 and 13 and the recording medium of claim 17 meet the requirements of Article 33(2)-(4) PCT.

Dependent claims 2-5, 7, 9-12, 14-16 and 18 relate to preferred embodiments of the invention and likewise meet the requirements of Article 33(2)-(4) PCT.

**To section VII:**

Reference signs in parentheses should have been inserted in the claims to increase their intelligibility, Rule 6.2(b) PCT. This applies to both the preamble and characterising portion.

DEC 06 1999

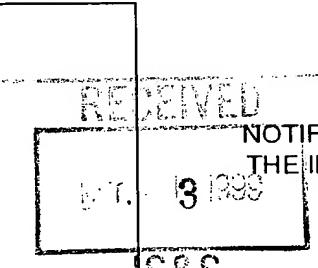
From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

Mr. J. Tripoli  
THOMSON MULTIMEDIA LICENSING INC.  
PO Box 5312  
PRINCETON, NEW JERSEY 08543  
ETATS-UNIS D'AMERIQUE

JBK



NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

S&amp;S

Date of mailing  
(day/month/year)

26.11.1999

Applicant's or agent's file reference  
RCA 89400

## IMPORTANT NOTIFICATION

International application No.  
PCT/US99/03512International filing date (day/month/year)  
18/02/1999Priority date (day/month/year)  
20/02/1998

Applicant  
THOMSON CONSUMER ELECTRONICS, INC. et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

## 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/	Authorized officer
 European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Corcos, E Tel. +49 89 2399-7418



**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
**(PCT Article 36 and Rule 70)**

Applicant's or agent's file reference  RCA 89400	<b>FOR FURTHER ACTION</b>	
See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)		
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International Patent Classification (IPC) or national classification and IPC  H04N7/16		
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<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input checked="" type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul>		
Date of submission of the demand  11/08/1999	Date of completion of this report  26.11.1999	
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Noll, B  Telephone No. +49 89 2399 8700	



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International application No. PCT/US99/03512

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4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/03512

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:      Claims 1-18
	No:      Claims
Inventive step (IS)	Yes:      Claims 1-18
	No:      Claims
Industrial applicability (IA)	Yes:      Claims 1-18
	No:      Claims

**2. Citations and explanations**

**see separate sheet**

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**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US99/03512

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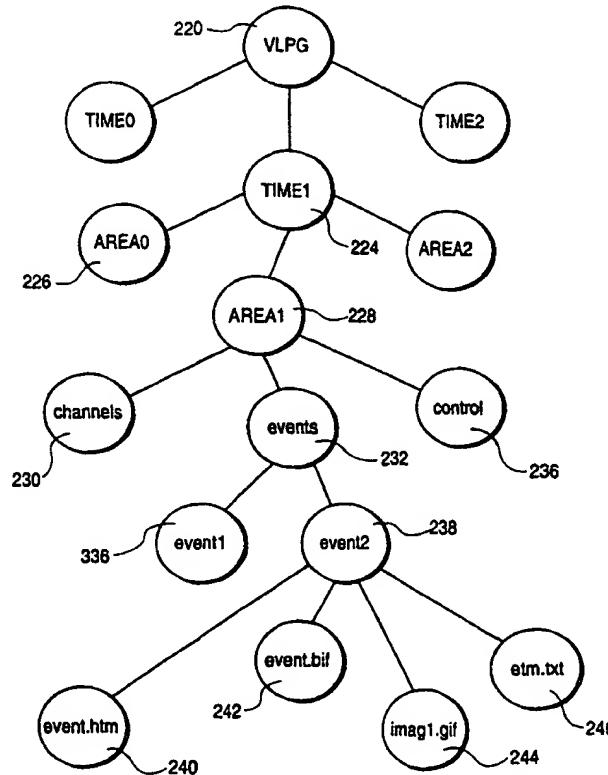
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> :  <b>H04N 7/16</b>		A1	(11) International Publication Number: <b>WO 99/43159</b>
			(43) International Publication Date: 26 August 1999 (26.08.99)
(21) International Application Number: PCT/US99/03512		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 18 February 1999 (18.02.99)			
(30) Priority Data: 60/075,412 20 February 1998 (20.02.98) US			
(71) Applicant (for all designated States except US): THOMSON CONSUMER ELECTRONICS, INC. [US/US]; 10330 North Meridian Street, Indianapolis, IN 46290 (US).			
(72) Inventors; and			
(75) Inventors/Applicants (for US only): OZKAN, Mehmet, Kemal [TR/TR]; Savasci Sok, Bozokatt 19/1, Avcilar, 34840 Istanbul (TR), TENG, Chia-Yuan [-/US]; 7384 Celata Lane, San Diego, CA 92129 (US). HEREDIA, Edwin, Arturo [BO/US]; Apartment 4015, 8274 Lakeshore Circle, Indianapolis, IN 46250 (US).			
(74) Agents: TRIPOLI, Joseph, S. et al.; Thomson Multimedia Licensing Incorporated, P.O. Box 5312, Princeton, NJ 08540 (US).			

## (54) Title: SYSTEM FOR FORMING, PARTITIONING AND PROCESSING ELECTRONIC PROGRAM GUIDES

## (57) Abstract

A program guide information data structure and processing system facilitates decoding. A decoder acquires ancillary information conveyed in hierarchically ordered data tables comprising packetized program guide data. The ancillary information includes hierarchically associated version identifiers enabling the decoder to identify change in data table content by examination of the version identifiers in hierarchical order. The decoder acquires cell numbers (e.g. identifying cell type, area, broadcast time and complexity level) assigned to individual partitions of the program guide information in order to adapt to dynamically re-partitioned program guide data.



**FOR THE PURPOSES OF INFORMATION ONLY**

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